

**MODIFICATION INSTRUCTIONS**  
**for the**  
***Kodak X-Omat* MULTILOADER 300**  
**Service Code 3058**  
**Modification No. 27**

***Kodak X-Omat* 270 RA PROCESSOR**  
**Service Code 3059**  
**Modification No. 18**

**Both are Type 1 Required**

- Purpose:**
- Install new style RACK SPRINGS that are more resistant to corrosion than the existing RACK SPRINGS.
  - Install new style Developer and Fixer replenishment FITTINGS to minimize chemical leakage from the current FITTINGS.
  - Install new style HEAT EXCHANGER FITTINGS to minimize leakage from the current HEAT EXCHANGER connections.
  - Install a new WASH TANK CLIP to increase the volume of water around the HEAT EXCHANGER in the WASH TANK to decrease false “Loss of Developer Cooling Ability” errors.



**Important**

Use qualified service personnel to install this modification.



HEALTH SCIENCES DIVISION



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**PLEASE NOTE** The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

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This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

<b>Service Effects:</b>	See Page 5 for changes to Part Numbers
<b>Special Requirements:</b>	None
<b>Serial Numbers:</b>	See Page 4
<b>Installation Time:</b>	1.5 hours
<b>Special Tools:</b>	3 CLAMPS TL-2170
<b>Parts Status:</b>	Available at Service Parts Management, September 1995
<b>Parts Requirements:</b>	Modification Kit 5B6766, see Page 5



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## Section 1: Serial Numbers and Parts Information

### Serial Numbers



#### Important

Check the Serial No. on the Processor and in the tables below. It may not be necessary to do the whole Mod on your Processor.

#### *Kodak X-Omat 270 RA PROCESSOR*

Processor Serial No. Range:	Action Required: (See "Parts Requirements" on Page 5)	
1930 and below	Install Groups 1, 2, 3, and 4 parts	Do Section 2 through Section 7
1931 to 1980	Install Groups 2, 3, and 4 parts only	Do Sections 2, 4, 5, 6, and 7
1981 to 2089	Install Groups 3 and 4 parts only	Do Sections 2, 5, 6, and 7
2090 to 2134	Install Group 4 parts only	Do Sections 2, 6 and 7
2135 to 2220	Mod 18 was factory installed. The 18 was not circled on the Mod Label	Circle 18 on the MODIFICATION LABEL
2221 and above	Modification 18 is factory installed	<b>None</b>

#### *Kodak X-Omat MULTILoader 300*

Processor Serial No. Range:	Action Required: (See "Parts Requirements" on Page 5)	
919 and below	Install Groups 1, 2, 3, and 4 parts	Do Section 2 through Section 7
920 to 949	Install Groups 3 and 4 parts only	Do Section 2, 5, 6, and 7
950 to 964	Install Group 4 parts only	Do Section 2, 6, and 7
965 to 984	Mod 27 was factory installed. The 27 was not circled on the Mod Label	Circle 27 on the MODIFICATION LABEL
985 and above	Modification is factory installed	<b>None</b>



## Changes to Existing Parts

Qty.	Existing Part No.	New Part No.	New Part Description
2	246580	<b>5B6165</b>	RACK SPRING
4	459344	<b>1C7106</b>	RACK SPRING
6	474239	<b>1C7107</b>	RACK SPRING
2	1C4520	<b>1C7113</b>	FITTING
2	562602 or 990418	<b>5B6156</b>	BARBED FITTING
2	779382	<b>5B6151</b>	FORMED TUBING
2	246801	<b>246803</b>	HOSE CLAMP B
1	943683	<b>5B6750</b>	WASH TANK CLIP

## Parts Requirements

Modification Kit 5B6766 includes:

Qty.	Part No.	Description
1	5B6964	Modification Instructions

<b>Group 1:</b>	2	5B6165	RACK SPRING
	4	1C7106	RACK SPRING
	6	1C7107	RACK SPRING

<b>Group 2:</b>	2	1C7113	FITTING
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<b>Group 3:</b>	2	5B6156	BARBED FITTING
	2	5B6151	FORMED TUBING
	2	246803	HOSE CLAMP B
	2	532378	O-RING SEAL

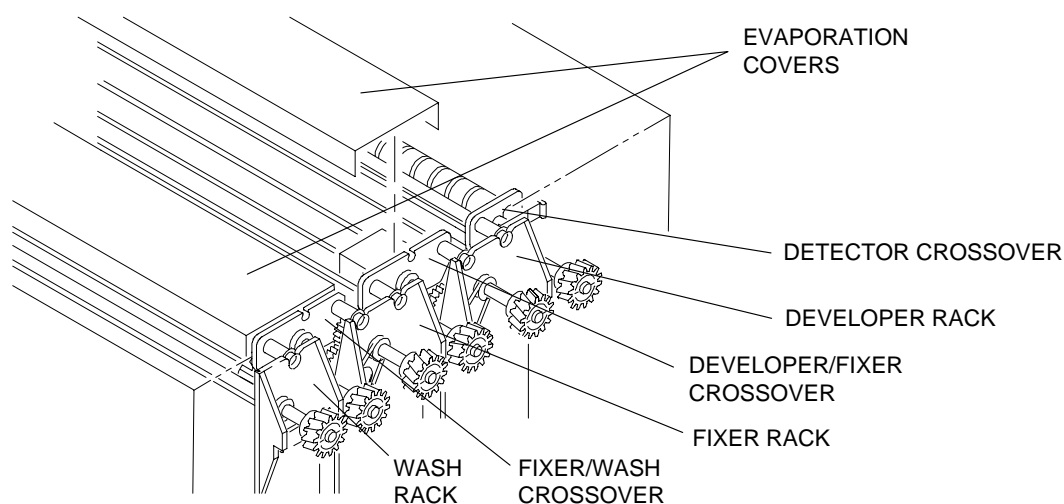
<b>Group 4:</b>	1	5B6750	WASH TANK CLIP
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## Section 2: Preliminary Procedure

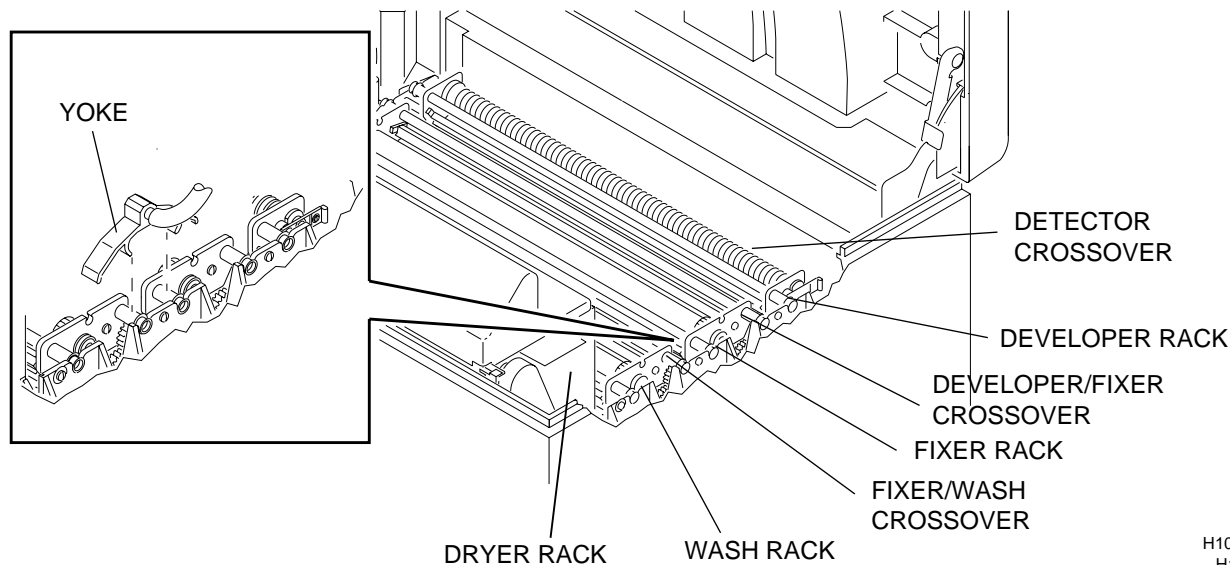
- [1] De-energize the PROCESSOR.
- [2] Move the main wall CIRCUIT BREAKER to "OFF".
- [3] For the 270 RA PROCESSOR only, lift the TOP COVER and remove:
  - DRIVE SIDE PANEL
  - WET SECTION COVER
  - TOP EXIT ASSEMBLY
- [4] For the MULTILOADER 300 only, extend the PROCESSOR and remove:
  - DRIVE SIDE SAFETY COVER
  - WET SECTION COVER

### Identifying the RACKS and CROSSOVERS



H104\_0072BCE  
H104\_0072BA

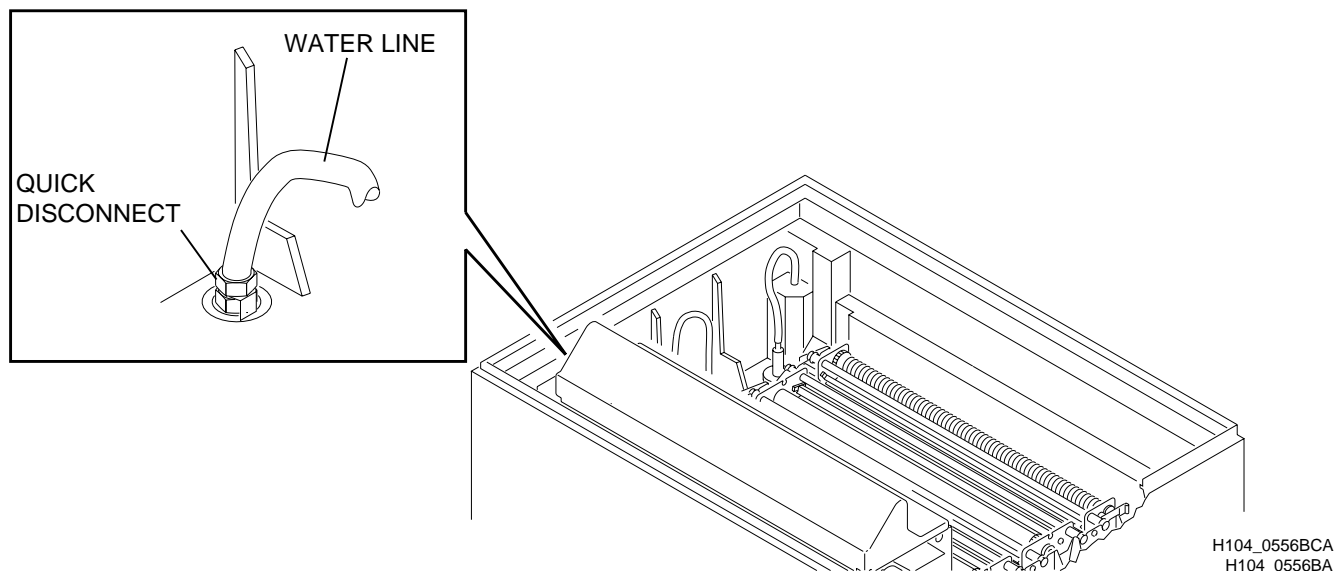
- [5] Remove the EVAPORATION COVERS.



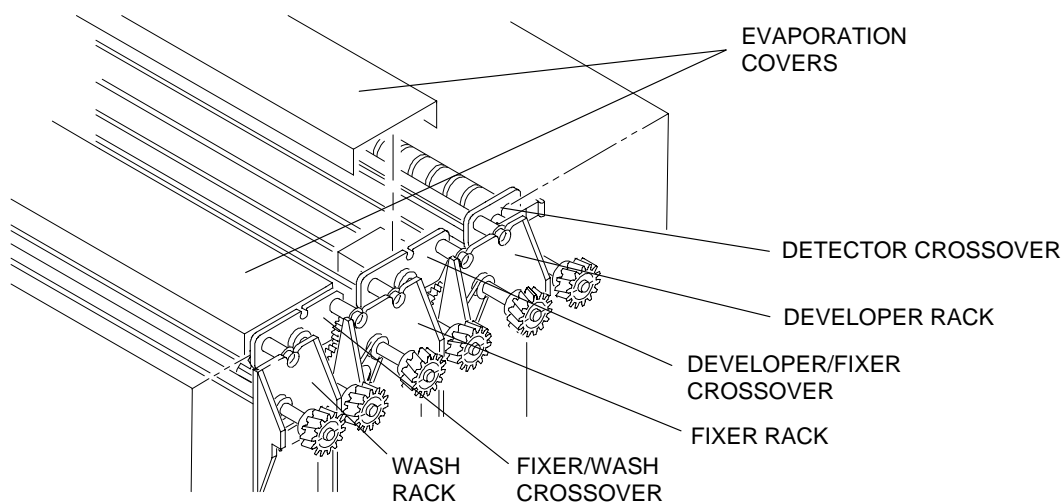
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H104\_0227BA

- [6] Disconnect the YOKE from the CROSSOVERS.





[7] Disconnect the water QUICK DISCONNECT from the TANK.



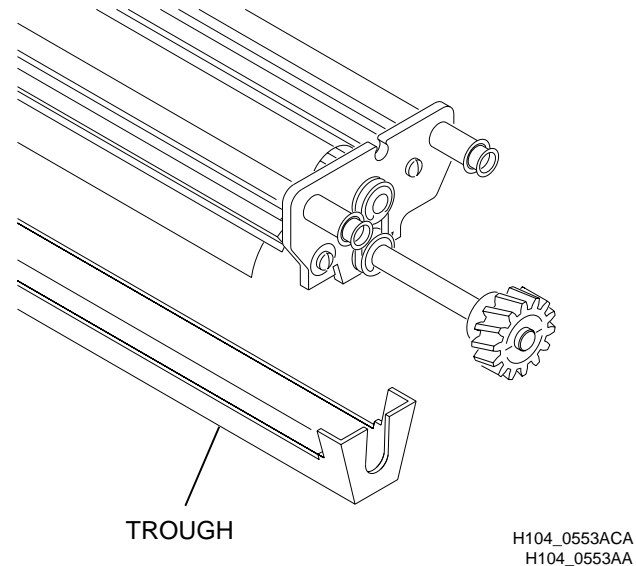
[8] Remove:

- DEVELOPER/FIXER CROSSOVER
- FIXER/WASH CROSSOVER
- WASH RACK
- DRYER RACK

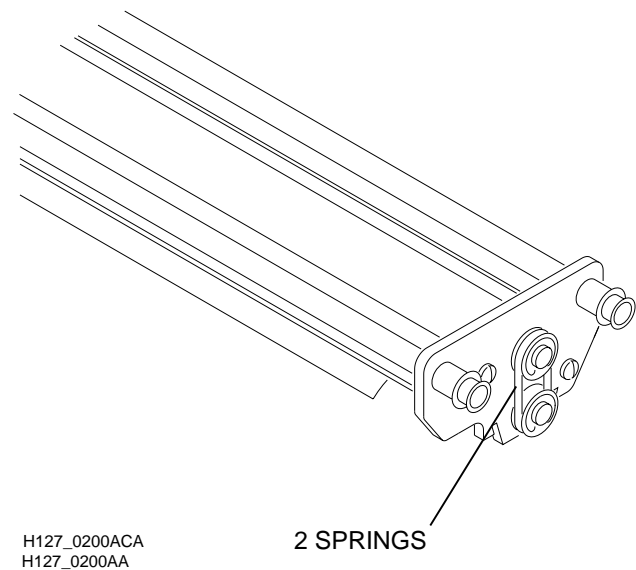


## Section 3: Installing the New SPRINGS

### Installing the New SPRINGS in the CROSSOVERS



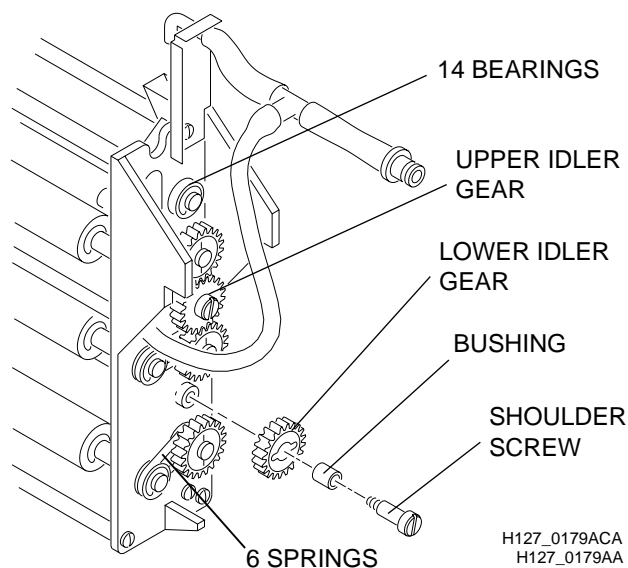
- [1] Remove the TROUGHS from the CROSSOVERS.



- [2] Remove and discard the 2 SPRINGS from the DEVELOPER/FIXER CROSSOVER and the FIXER/WASH CROSSOVER.
- [3] Install the 2 new SPRINGS, Part No. 1C7106, in both the DEVELOPER/FIXER CROSSOVER and the FIXER/WASH CROSSOVER.
- [4] Install the TROUGHS on the CROSSOVERS.

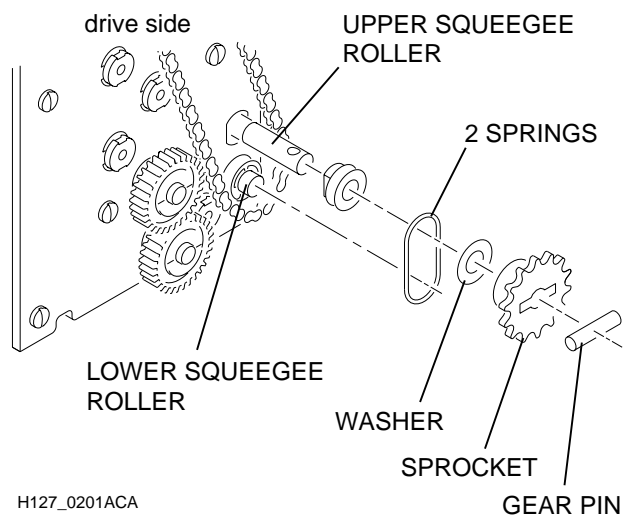


## Installing the New SPRINGS in the WASH RACK



- [5] Remove from both the LOWER and UPPER IDLER GEARS on the WASH RACK:
- SHOULDER SCREW
  - BUSHING
  - IDLER GEAR
- [6] Remove and discard the 6 SPRINGS from the WASH RACK
- a. To remove the top SPRING on the non-drive side of the RACK, do the steps below.
1. Remove the SPRING from around the BEARING.
  2. Place the SPRING between the teeth of the GEAR.
  3. Rotate the GEAR.
- [7] Install the 6 new SPRINGS, Part No. 1C7107.
- [8] Install the:
- IDLER GEARS
  - BUSHINGS
  - SHOULDER SCREWS

## Installing the new SPRINGS in the DRYER RACK



- [9] Remove the following parts from the UPPER SQUEEGEE ROLLER on the non-drive side of the DRYER RACK:
- SPRING and discard
  - E-RING and keep
- [10] For access to the GEAR PIN, move the UPPER SQUEEGEE ROLLER toward the drive side of the PROCESSOR.
- [11] Remove from the drive side of the UPPER SQUEEGEE ROLLER:
- GEAR PIN
  - SPROCKET
  - WASHER
  - SPRING and discard
- [12] Reverse Steps 9 through 11 to install the 2 new SPRINGS, Part No. 5B6165.

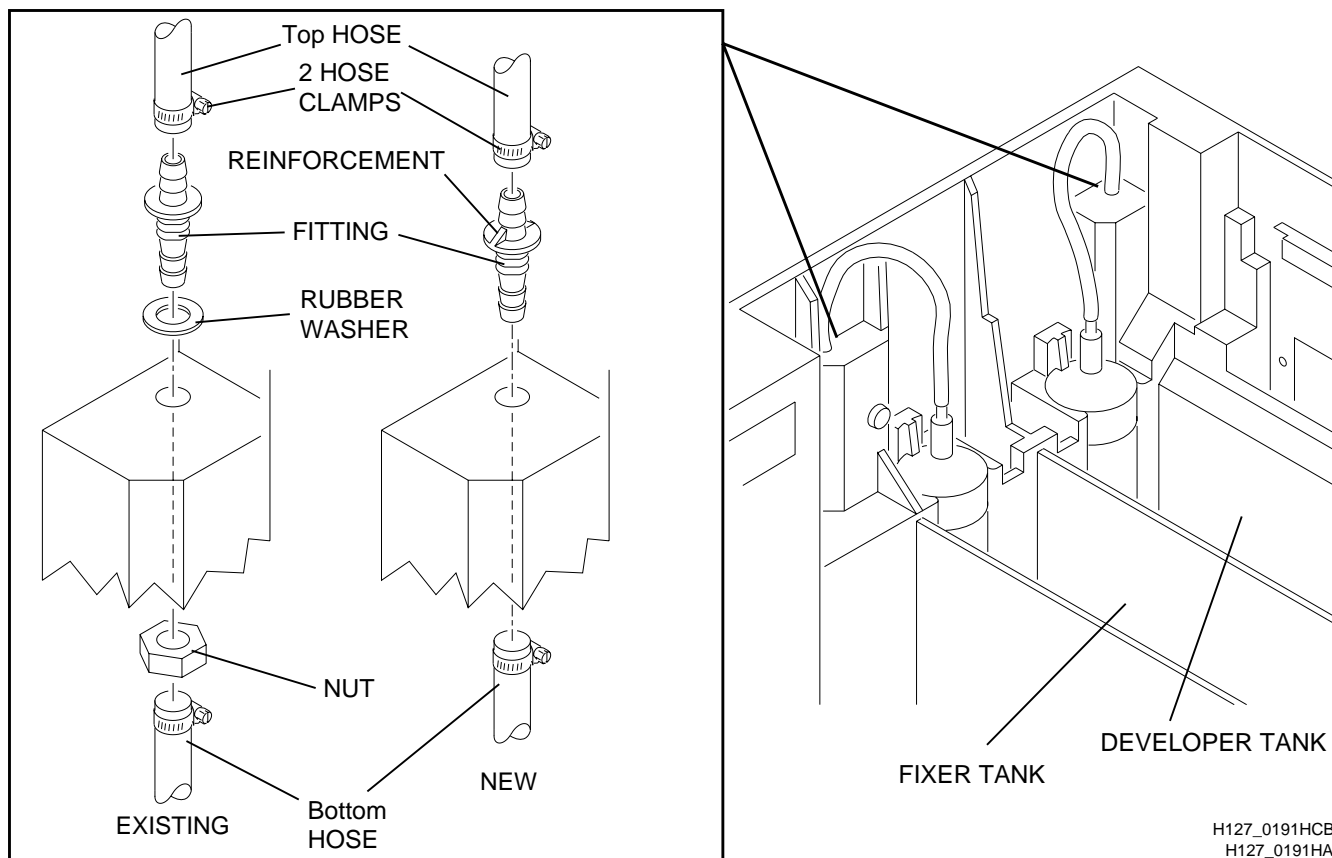


## Section 4: Installing the New Replenishment FITTINGS



### Caution

Chemical leakage may occur when you remove the FITTINGS.



H127\_0191HCB  
H127\_0191HA

[1] Remove the existing FITTING, RUBBER WASHER, and NUT for the DEVELOPER and FIXER TANKS by doing the following for each FITTING:

- Loosen and disconnect the top and bottom HOSE CLAMPS.
- Remove the HOSE from each of the FITTINGS.
- Remove and discard the:
  - NUT
  - FITTING
  - RUBBER WASHER



### Note

Do not use the RUBBER WASHER and NUT again.

[2] Install the new FITTINGS for the DEVELOPER and FIXER TANKS as follows:

- Install the FITTING between the top and bottom HOSE.
- Tighten the top and bottom HOSE CLAMPS to fasten the new FITTING.

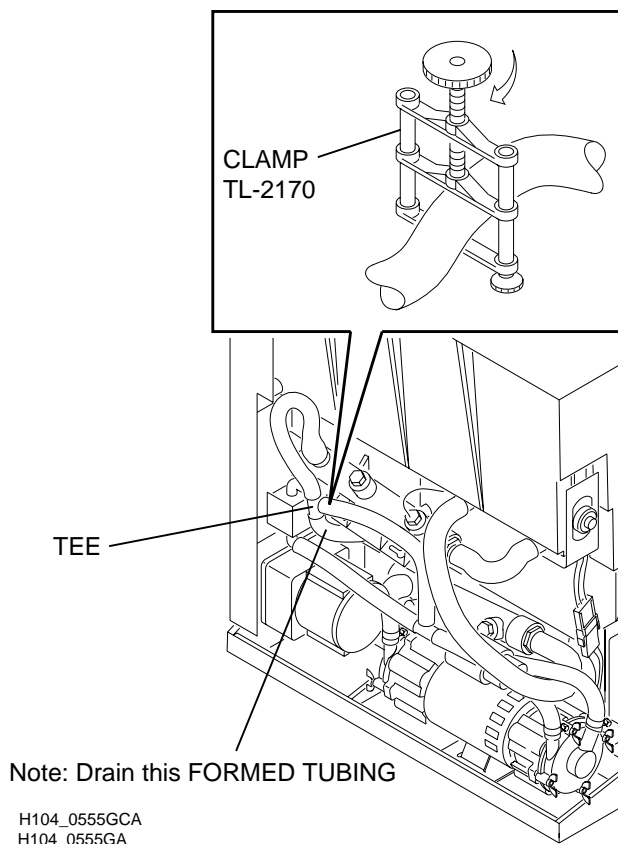


## Section 5: Installing the FITTINGS and FORMED TUBING

### Removing the Existing FITTINGS and FORMED TUBING

**Caution**

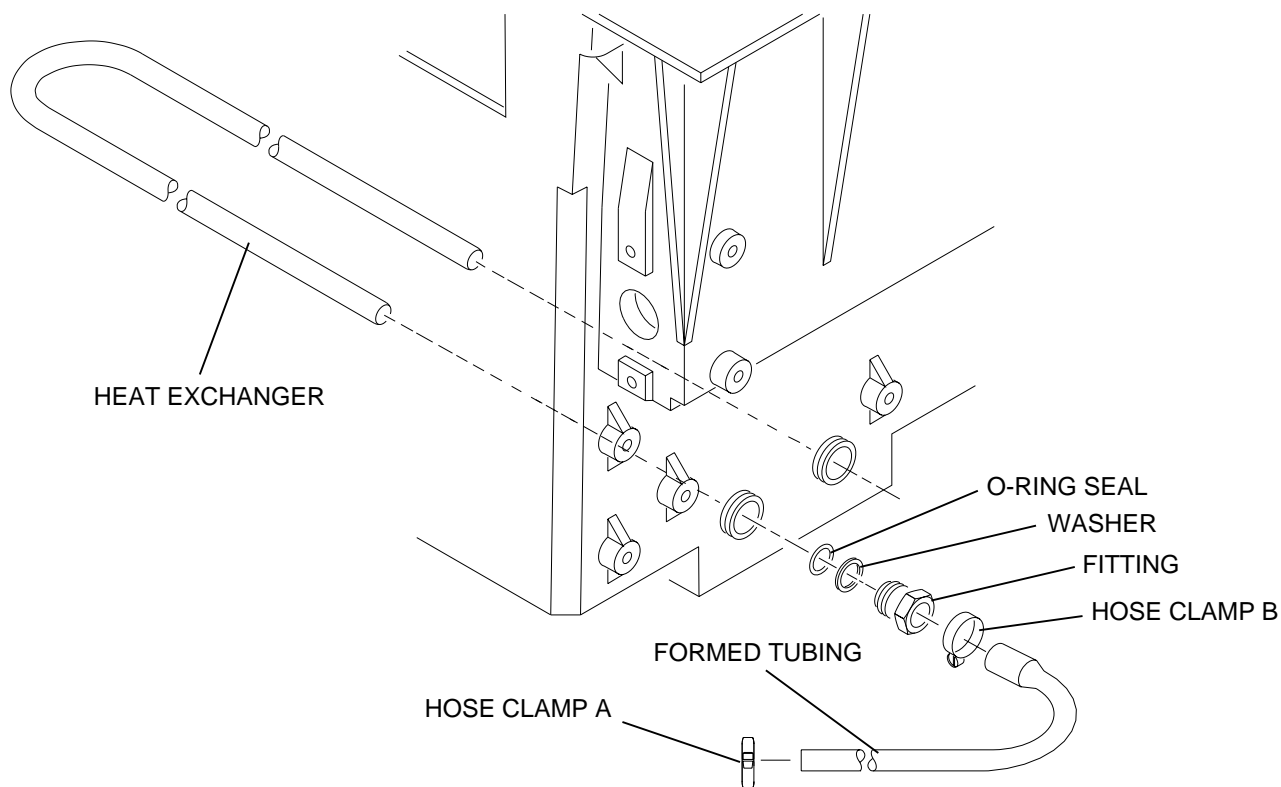
DEVELOPER leakage may occur when you remove the HEAT EXCHANGER and FORMED TUBING.

**Installing the CLAMPS TL-2170**

[1] See the figure above:

- (a) Install a CLAMP TL-2170 on each of the 3 FORMED TUBINGS connected to the TEE.
  - Install the CLAMPS TL-2170 close to the TEE.
- (b) Disconnect the FORMED TUBING, that requires draining, from the TEE. (See the figure above)
  - Keep the HOSE CLAMP A.
- (c) Loosen the HOSE CLAMP on the HEAT EXCHANGER end of the FORMED TUBING, and rotate the FORMED TUBING downward.
- (d) Remove the CLAMP TL-2170 and drain the FORMED TUBING into a container.





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H127\_0204HA

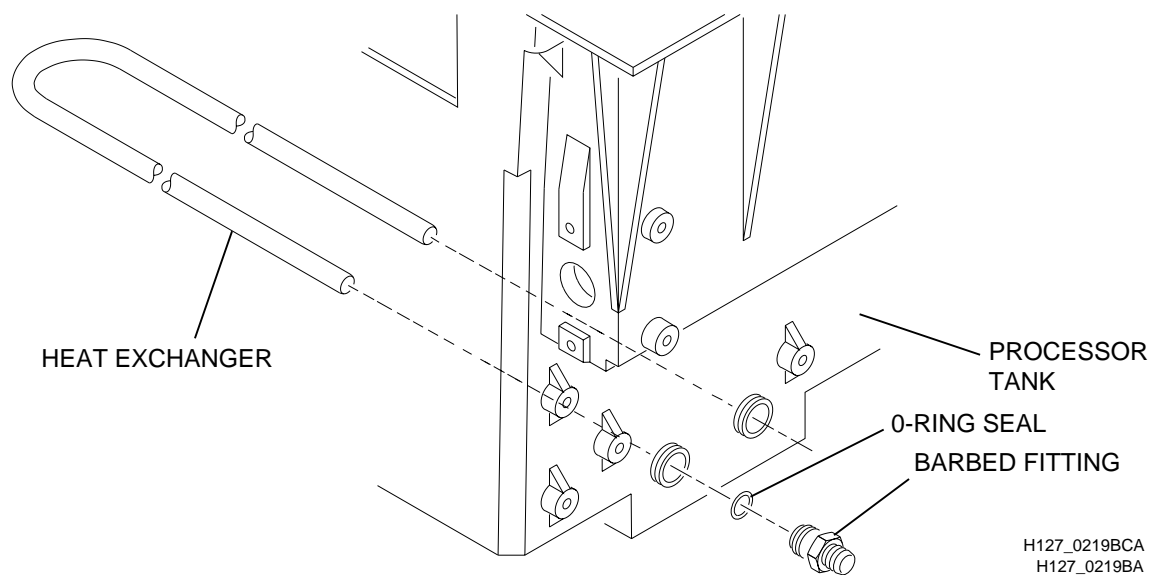
[2] Remove the other HOSE CLAMP A.

[3] Remove and discard:

Part Description	Qty.
HOSE CLAMP B	2
FORMED TUBING	2
FITTING	2
WASHER	2
O-RING SEAL	2



## Installing the New BARBED FITTINGS

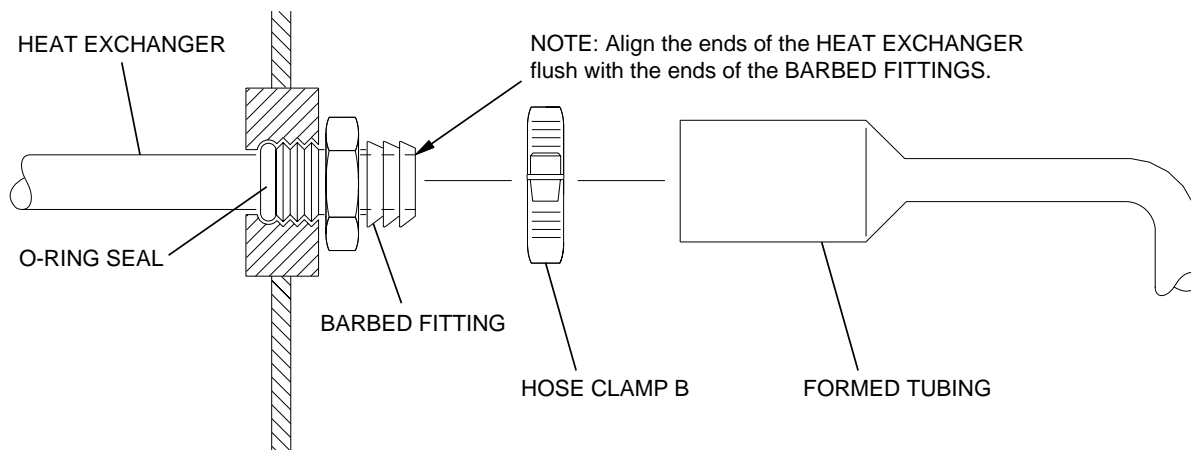


- [1] Place the ends of the HEAT EXCHANGER through the holes in the side of the PROCESSOR TANK.
- [2] Place a new O-RING SEAL on each end of the HEAT EXCHANGER.



### Important

DO NOT use the existing WASHERS with the new BARBED FITTINGS.



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H127\_0206BA

- [3] Place a new BARBED FITTING onto each end of the HEAT EXCHANGER.
- [4] Loosely rotate the new BARBED FITTINGS into the holes in the side of the PROCESSOR TANK.



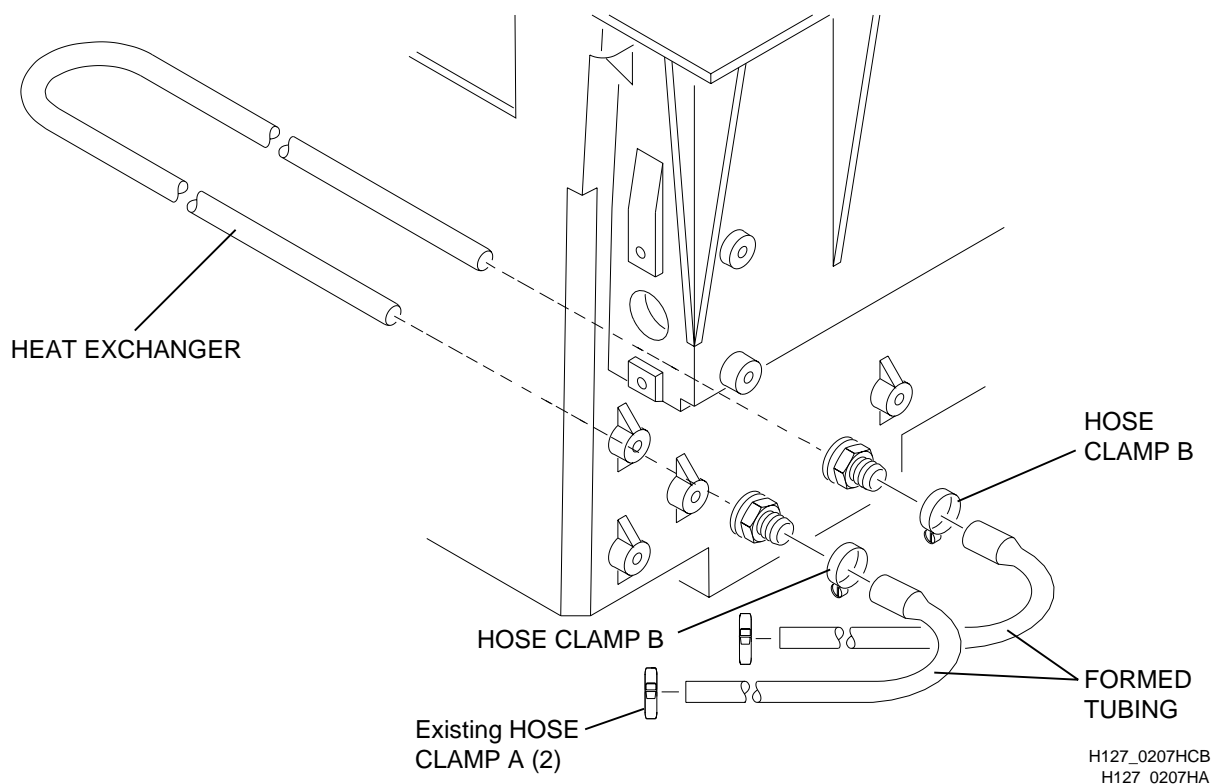
### Caution

Do not tighten the BARBED FITTINGS more than necessary to correctly seat the O-RING SEALS. Incorrect installation of the BARBED FITTINGS will cause damage to the O-RING SEALS and fluid leakage.

- [5] Align the ends of the HEAT EXCHANGER flush with the ends of the BARBED FITTINGS and tighten the BARBED FITTINGS.



## Installing the New FORMED TUBING and New HOSE CLAMPS



Qty.	Part No.	Description
2	5B6151	FORMED TUBING
2	From Step 2, Page 12	HOSE CLAMP A
2	246803	HOSE CLAMP B



### Important

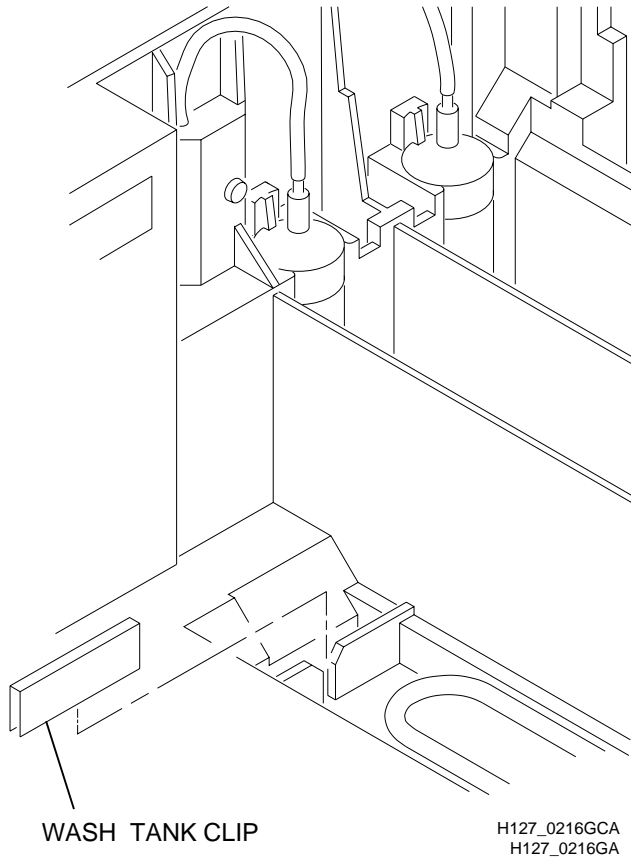
Even when a CLAMP is correctly tightened at installation, cold flow or shrinkage of the FORMED TUBING will occur beneath the CLAMP. CLAMPS should be periodically checked and tightened, especially after FORMED TUBING replacement.

- [1] Install the new FORMED TUBING and HOSE CLAMPS, and tighten the HOSE CLAMPS.
- [2] Remove the remaining 2 CLAMPS TL-2170.



## Section 6: Installing the New WASH TANK CLIP

### WASH TANK



- [1] Remove and discard the existing WASH TANK CLIP.
- [2] Install the new WASH TANK CLIP.



## Section 7: Final Steps

[1] Install:

- WASH RACK
- FIXER/WASH CROSSOVER
- DEVELOPER/FIXER CROSSOVER
- DRYER RACK

[2] Connect the water QUICK DISCONNECT to the TANK.

[3] Connect the YOKE to the CROSSOVERS.

[4] Install the EVAPORATION COVERS.

[5] For the MULTILOADER 300 only, install:

- WET SECTION COVER
- DRIVE SIDE SAFETY COVER
- Move the PROCESSOR back into the MULTILOADER 300

[6] For the 270 RA PROCESSOR only, install:

- TOP EXIT ASSEMBLY
- WET SECTION COVER
- DRIVE SIDE PANEL

[7] Close the TOP COVER.

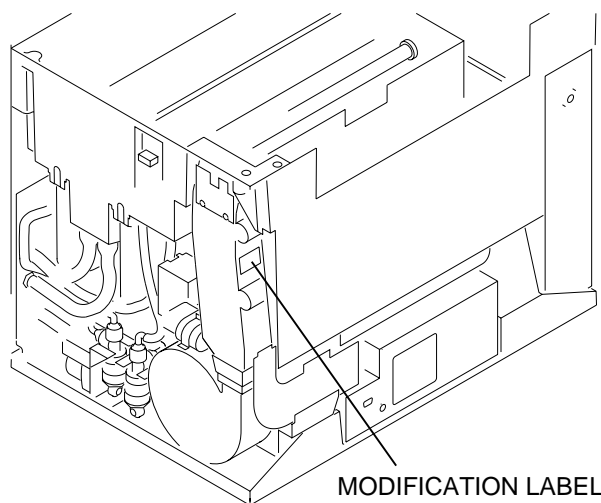
[8] Move the main wall CIRCUIT BREAKER to “ON”.

[9] Energize the PROCESSOR.

[10] Check for leakage from:

- HEAT EXCHANGER FITTINGS
- FORMED TUBING
- Replenishment FITTING on the DEVELOPER TANK
- Replenishment FITTING on the FIXER TANK

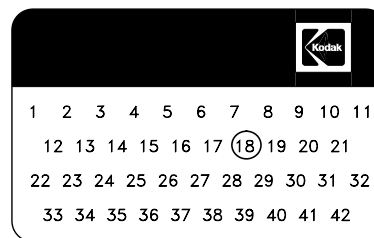
[11] Check for correct operation of the PROCESSOR.



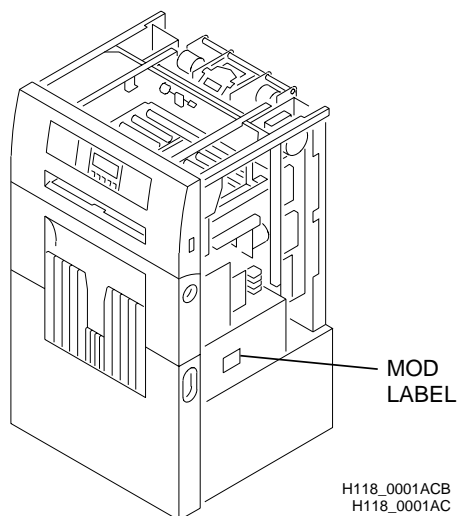
MODIFICATION LABEL

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H104\_0554AA

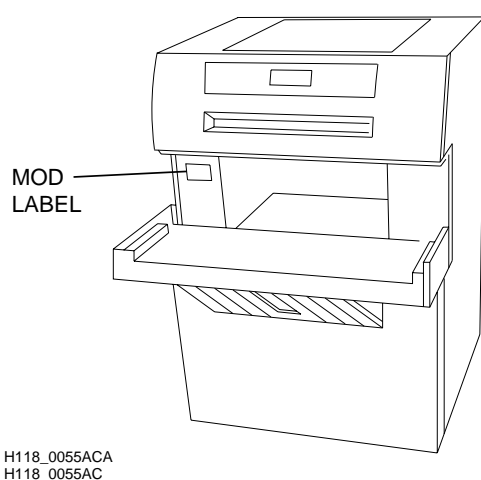
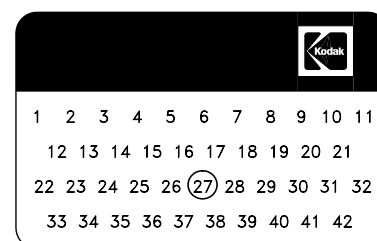
[12] For the *Kodak X-Omat 270 RA PROCESSOR* circle 18 on the MODIFICATION LABEL.



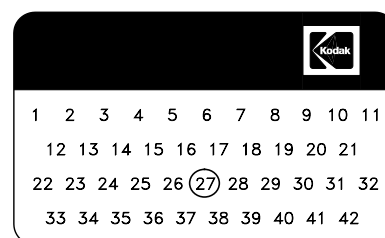




**[13]** For the MULTILOADER 300 Serial No. 1369 and below Circle 27 on the MODIFICATION LABEL.



**[14]** For the MULTILOADER 300 Serial No. 1370 and above Circle 27 on the MODIFICATION LABEL.



## Publication History

Print Date	Pub. No.	ECO No.	Affected Pages	File Name	Notes
28JUL95	5B6964	2592-327	All	ma3058_27_28jul95.doc	New Modification Instruction



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